Part 2 -- Amendment to the Claims

1.-15. Cancelled

16. (New) A method of manufacturing multi-sheet corrugated material from first and second sheets which are adhered together, the first sheet having a wave shape defined by parallel-extending peaks and valleys, comprising:

feeding the first sheet and the second sheet simultaneously;

bringing the peaks of the first sheet into abutting contact with the second sheet at abutting contact portions of the sheets as the sheets are fed simultaneously;

heating substantially only the abutting contact portions of at least one of the first and second sheets to an adherence temperature sufficient for adhering the heated sheet to the other sheet;

pressing the first and second sheets together at the abutting contact portions while the heated sheet is at the adherence temperature to thereby adhere the two sheets together at the abutting contact portions; and

performing said heating and pressing of the abutting contact portions as the sheets are in motion from said simultaneous feeding.

17. (New) A method as defined in claim 16, further comprising:

feeding the first sheet in a direction parallel to the peaks and valleys.

18. (New) A method as defined in claim 17, further comprising:

heating the abutting contact portions along a heating path extending parallel to the direction that the sheets are fed as the sheets are in motion from said simultaneous feeding.

19. (New) A method as defined in claim 18, further comprising:

continuously heating the abutting contact portions along the entire predetermined length of the heating path as the sheets are in motion from said simultaneous feeding.

20. (New) A method as defined in claim 18, further comprising:

pressing the first and second sheets together along a pressing path in alignment with the heating path as the sheets are in motion from said simultaneous feeding;

extending the pressing path to a predetermined length; and

extending the heating path to a predetermined length which is greater than the predetermined length of the pressing path.

21. (New) A method as defined in claim 17, further comprising:

orienting a plurality of elongated core bars to extend parallel to one another and to fit within the valleys of the first sheet while adjoining the peaks of the first sheet;

feeding the first sheet onto the plurality of core bars with each core bar located in a valley and adjoining a peak of the first sheet; and

transferring energy substantially only from each core bar to heat the abutting contact portions to the adherence temperature as the first sheet is in motion.

22. (New) A method as defined in claim 21, further comprising:

transferring thermal energy from each bar to heat the abutting contact portions.

23. (New) A method as defined in claim 21, further comprising:

pressing the first and second sheets together at the abutting contact portions by pressing the abutting contact portions against the core bars.

24. (New) A method as defined in claim 23, further comprising:

pressing the abutting contact portions against the core bars with a press roll.

25. (New) A method as defined in claim 16, further comprising:

forming the wave shape in the first sheet while the first sheet is being fed and prior to bringing the peaks of the first sheet into contact with the second sheet at the abutting contact portions.

26. (New) A method as defined in claim 16, wherein the second sheet is planar.

27. (New) A method as defined in claim 16, wherein the second sheet has a wave shape defined by parallel-extending peaks and valleys, and further comprising:

bringing the peaks of the first and second sheets into abutting contact at the abutting contact portions as the sheets are fed simultaneously.

28. (New) A device for manufacturing multi-sheet corrugated material from first and second sheets which are adhered together, the first sheet having a wave shape defined by parallel-extending peaks and valleys, comprising:

a feed mechanism which contacts the first and second sheets and moves the sheets simultaneously in a longitudinal direction parallel to the peaks and valleys of the first sheet;

a guide member positioned to receive the sheets moving simultaneously in the longitudinal direction and to guide the longitudinally moving sheets into contact with one another with the peaks of the first sheet abutting the second sheet at abutting contact portions of the sheets as the sheets are simultaneously moved in the longitudinal direction;

a plurality of elongated core bars positioned stationarily to extend parallel to one another and parallel to the longitudinal direction, the plurality of core bars stationarily positioned to fit within the valleys of the first sheet while the sheets contact one another at the abutting contact portions and as the sheets are simultaneously moved in the longitudinal direction over the elongated core bars;

each core bar including a local energy transfer element which transfers energy substantially only onto the abutting contact portions of the sheets while the sheets are simultaneously moved in the longitudinal direction over the elongated core bars, the local energy transfer element transferring sufficient energy to the abutting contact portions to heat at least one of the sheets at the abutting contact portions to an adherence temperature sufficient for adhering the heated sheet to the other sheet; and

a press device positioned at a location relative to each core bar and the local energy transfer element of that core bar to press the first and second sheets together at the abutting contact portions after the one sheet is heated to the adherence temperature, the press device pressing the sheets together at the abutting contact portions as the sheets are simultaneously moved in the longitudinal direction, the press device adhering the two sheets together at the abutting contact portions.

29. (New) A device as defined in claim 28, wherein:

the energy transferred substantially only by core bars is sufficient energy to heat the abutting contact portions to the adherence temperature as the first sheet is in motion.

30. (New) A device as defined in claim 28, wherein:

the guide member comprises an extension of at least one of the one core bars.

31. (New) A device as defined in claim 28, wherein:

the local energy transfer element of each core bar establishes a heating path extending along each core bar; and

the local energy transfer element transfers energy to the abutting contact portions along the length of the heating path as the sheets are in motion relative to each core bar.

32. (New) A device as defined in claim 31, wherein:

each local energy transfer element transfers thermal energy to the abutting contact portions.

33. (New) A device as defined in claim 31, wherein:

the local energy transfer element constitutes a thermal transfer characteristic of the core bar; and

the core bar is heated to transfer thermal energy to the abutting contact portions.

34. (New) A device as defined in claim 33, wherein:

each local energy transfer element comprises a contact surface of the core bar.

35. (New) A device as defined in claim 34, wherein:

the press device comprises a press roll which rolls in contact with one of the simultaneously moving sheets.

36. (New) A device as defined in claim 35, wherein:

the press roll is positioned relative to the core bars to press the first and second sheets together at the abutting contact portions between the press roll and the core bars.

37. (New) A device as defined in claim 28, further comprising:

an energy source located remotely from the core bars and connected to the core bars to conduct energy to the core bar to supply the energy transferred from the local energy contact element to the abutting contact portions of the sheets.

38. (New) A device as defined in claim 28, further comprising:

an energy source located within the core bars and operative to supply the energy transferred from the local energy contact element to the abutting contact portions of the sheets.

39. (New) A device as defined in claim 28, wherein:

the first sheet is substantially planar prior to the formation of the wave shape therein;

the feed mechanism contacts and moves the first planar sheet in the longitudinal direction; and further comprising:

a corrugation device receptive of the planar first sheet moved by the feed mechanism which is operative to form the wave shape in the first sheet prior to the first sheet encountering the guide member.

40. (New) A device as defined in claim 28, wherein the second sheet is planar.

41. (New) A device as defined in claim 28, wherein the second sheet has a wave shape defined by parallel-extending peaks and valleys, and wherein:

the guide member is positioned to guide the longitudinally moving sheets into contact with one another with the peaks of the first and second sheet abutting one another at the abutting contact portions of the sheets as the sheets are simultaneously moved in the longitudinal direction; and

the plurality of elongated core bars are positioned stationarily to fit within the valleys of the first and second sheets to heat the abutting contact portions as the sheets are simultaneously moved in the longitudinal direction over the elongated core bars.